

**REMARKS**

Reconsideration and allowance of the above-identified application are respectfully requested. Claims 1-10, 12 and 15-21 are now pending, wherein it is proposed to amend claim 15 and cancel claims 13 and 14. Entry of these amendments is appropriate in the period after a final rejection because the cancellation of claims 13 and 14 addresses an objection in the Office Action and claim 15 is being amended to correct two minor typographical errors. These amendments do not require further search and/or examination.

Claims 1-10, 12 and 15-21 are rejected for obviousness under 35 U.S.C. § 103(a) in view of the combination of U.S. Patent No. 7,338,998 to Murata et al. (“Murata”) and U.S. Patent Application Publication No. 2003/0036403 to Shiu et al. (“Shiu”). This ground of rejection is respectfully traversed.

The combination of Murata and Shiu does not render claim 1 obvious because the combination does not disclose or suggest:

c) indicating the transport format combinations and the channel quality requirements to the mobile station;

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g) receiving the indication of existing channel quality...[which] is communicated to the mobile station by inband signaling...[and] is included in every downlink radio packet, in data locations normally assigned for carrying user information.

To reject element c) set forth above the Office Action cites column 19, lines 34-54 of Murata as disclosing the “base station sending TFC information to mobile device after monitoring conditions of traffic”.<sup>1</sup> Murata, however, does not

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<sup>1</sup> Final Office Action at page 4.

disclose or suggest that the base station sends transport format combination (TFC) information, but instead that the mobile station calculates the TFC.

First, the portion of Murata cited by the Office Action does not disclose or suggest the base station sending TFC information to the mobile station. Instead, this portion states that the base station notifies the mobile station of the designated transmission power  $P_{MAX}$  or appropriate transmission power value  $P_g$  and the mobile station “uses this value to create TFC control data and performs TFC selection based upon the transmission power”.<sup>2</sup> Murata’s disclosure of transmitting power values  $P_{MAX}$  and  $P_g$  does not disclose or suggest “indicating the **transport format combinations and the channel quality requirements** to the mobile station”<sup>3</sup> as required by Applicant’s claim 1. Instead, Murata is clear that the mobile station calculates TFC. For example, Murata states:

- Disclosed is a transport format combination (TFC) **selection method in a mobile terminal apparatus** for selecting a TFC;<sup>4</sup>
- the foregoing objects are attained by providing **a mobile terminal apparatus for selecting** a transport format combination (TFC);<sup>5</sup> and
- the [*mobile station’s*] class changeover unit 53c raises or lowers the allowed TFC class using the TFC control data and **selects a TFC** from the class.<sup>6</sup>

Thus, the disclosure of Murata does not support the Office Action’s position that Murata discloses a base station sending TFC information to the mobile station.

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<sup>2</sup> Column 19, lines 50-54.

<sup>3</sup> Emphasis added.

<sup>4</sup> Abstract. (Emphasis added).

<sup>5</sup> Column 10, liens 24-26. (Emphasis added).

<sup>6</sup> Column 15, lines 56-58. (Emphasis added).

In response to Applicant's arguments that Murata does not disclose or suggest element c) of claim 1, the final Office Action characterizes Applicant's argument as stating that Murata and Shiu "do not disclose channel quality indication".<sup>7</sup> Applicant, however, actually argued that the combination does not disclose or suggest element c), which recites more than just "channel quality indication". Instead this element includes "indicating the transport format combinations and the channel quality requirements to the mobile station". Thus, even if it is assumed that Shiu discloses "channel quality indications", the combination would still not disclose or suggest indicating both transport format combinations and channel quality requirements to the mobile station as required by claim 1.

Nevertheless, the Response to Arguments section of final Office Action cites Shiu's discussion of SINR or SNIR in paragraphs 0011, 0013, 0014 and 0052-0054 for the disclosure of "channel quality indications". While these paragraphs do discuss SINR and SNIR, these paragraphs do not disclose or suggest that this is indicated "to the mobile station" as required by claim 1. Instead, these paragraphs at best disclose that the mobile terminal measures the received SNIR. For example, paragraph 0052 states that "If the received signal quality **as measured** by the received signal-to-noise-plus-interference ratio (SNIR) **at the terminal** is too poor, then the likelihood of correctly decoding the data transmission decreases and performance may be compromised (higher

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<sup>7</sup> Final Office Action at page 2.

BLER).”<sup>8</sup> Measurement of the signal quality at the terminal is also discussed in paragraph 0055, which states:

The inner loop adjustment for a particular data transmission is typically achieved by (1) **measuring the signal quality of the data transmission at the terminal** (block 512), (2) comparing the received signal quality (i.e., the received SNIR) against the target SNIR (block 514), and (3) sending power control information back to the transmitting base station.<sup>9</sup>

Thus, contrary to the statements in the Office Action Shiu discloses measuring signal quality **at the terminal**, and not that the signal quality measurements are indicated “to the mobile station” as required by Applicant’s claim 1. Furthermore, Shiu, like Murata, does not disclose or suggest “indicating the transport format combinations and the channel quality requirements to the mobile station”<sup>10</sup> as required by claim 1.

Because Murata and Shiu both do not disclose or suggest “indicating the transport format combinations and the channel quality requirements to the mobile station”, the combination does not disclose or suggest this claim element.

Regarding element g) of claim 1, the Response to Arguments section of the final Office Action cites paragraphs 0048-0050 and 0052-0055 of Shiu as disclosing “downlink transmitting channel quality from base station to the mobile device station through the TCFI including that information of the channel quality by the SINRs data.” Even if it were assumed that Shiu discloses such, this still does not meet all of the features of element g) of Applicant’s claim 1, such as the indication of existing channel quality being “included in every

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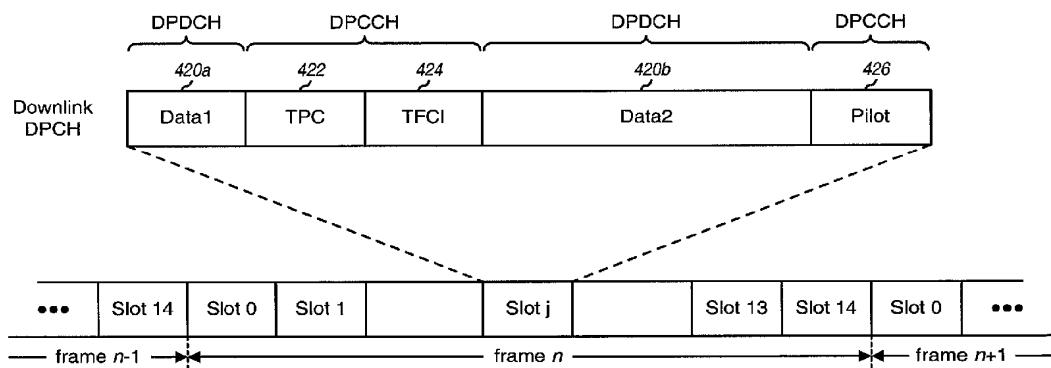
<sup>8</sup> Emphasis added.

<sup>9</sup> Emphasis added.

<sup>10</sup> Emphasis added.

downlink radio packet, in data locations normally assigned for carrying user information.”

To be sure, FIG. 4 of Shiu (reproduced below) clearly discloses that the TFCI is transmitted outside of the Data2 portion 420b, in a dedicated TFCI field 424. Accordingly, Shiu does not disclose or suggest that the TFCI field is included “in data locations normally assigned for carrying user information.”



**FIG. 4**

Furthermore, the indication of existing quality is for “the channel of variable quality”, which is defined in claim 1 as the channel “used for communication from the mobile station to the network”. Shiu clearly discloses that “TFCI field 424 is used to send information indicative of the transport format of the **downlink** DPCH and a **downlink** shared channel.”<sup>11</sup> As is well known by those skilled in the art the downlink channel is used for transmission from a base station **to a mobile terminal**, whereas the indication in Applicant’s claim 1 is for the channel “used for communication **from the mobile station to the network12**

<sup>11</sup> Paragraph 0051. (Emphasis added).

<sup>12</sup> Emphasis added.

Additionally, the TFCI is transmitted in every slot of every frame, whereas the indication of existing quality of Applicant's claim 1 is "included in every downlink radio packet".

Murata does not remedy the above-identified deficiencies of Shiu with respect to the claimed receiving the indication of existing channel quality. Accordingly, even if one skilled in the art were motivated to combine Murata and Shiu, the combination would not disclose or suggest receiving the indication of existing channel quality in the manner required by claim 1.

Independent claim 15 recites similar elements to those discussed above with regard to claim 1 and is patentably distinguishable over the combination of Murata and Shiu for similar reasons. Claims 2-10, 12 and 16-21 are patentably distinguishable over the combination of Murata and Shiu at least by virtue of their dependency from claims 1 or 15.

Furthermore, as noted in Applicant's previous Reply, the combination of Murata and Shiu does not disclose or suggest that "the relative channel quality is calculated as the minimum channel quality required such that data sent on the channel is received with an error ratio below a defined threshold" as recited in claim 5 or "(c2) indicating the rank of each transport format combination to the mobile station, along with the transport format combinations themselves, to the mobile station" as recited in claim 6.

For at least those reasons set forth above, it is respectfully requested that the rejection of claims 1-10 12 and 15-21 for obviousness be withdrawn.

Finally, Applicant's previous Reply discussed how the Office Action indicated that the U.S. Patent Application Publication to Berglund et al. cited in the Information Disclosure Statement filed on July 14, 2005, was not considered due to a typographical error, but that the Examiner is obligated to consider this document because it was cited in an International Search Report (ISR), and as evidenced by the Notice of Acceptance, a copy of the ISR and Berglund were provided to the U.S.P.T.O. on July 14, 2005. Because the final Office Action has not responded to this discussion it is assumed that the Examiner has complied with the requirement of M.P.E.P. § 609.03 that "The examiner will consider the documents cited in the international search report in a PCT national stage application when the Form PCT/DO/EO/903 indicates that both the international search report and the copies of the documents are present in the national stage file."

If there are any questions regarding this response or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket # 103884.56565US).

Respectfully submitted,

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